

# Produktinformation



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#### SANTA CRUZ BIOTECHNOLOGY, INC.

## Sall3 shRNA (m) Lentiviral Particles: sc-45625-V



#### BACKGROUND

Sall3 (Sall3, sal-like 3) and Sall4 (Sall4, sal-like 4) are mammalian homologs of the Drosophila region-specific homeotic gene spalt (sal), which encodes a zinc finger-containing transcription regulator. Drosophila spalt (sal) is an essential genetic component required for the specification of posterior head and anterior tail as opposed to trunk. Sall3 is expressed at 24 weeks of gestation in several regions of the human fetal brain including neurons of the hippocampus formation and of mediodorsal and ventrolateral thalamic nuclei, Purkinje cells of the cerebellum, and a subset of neurons in the brainstem. Sall4 expression in early mouse embryos is gradually confined to the head region and the primitive streak, followed by prominent expression in the developing midbrain, branchial arches, limbs, and genital papilla.

#### REFERENCES

- 1. Nielsen, T.O., et al. 2003. Tissue microarray validation of epidermal growth factor receptor and SALL2 in synovial sarcoma with comparison to tumors of similar histology. Am. J. Pathol. 163: 1449-1456.
- 2. Sato, A., et al. 2003. Zinc finger protein sall2 is not essential for embryonic and kidney development. Mol. Cell. Biol. 23: 62-69.
- 3. Wabbels, B.K., et al. 2004. No evidence of SALL4-mutations in isolated sporadic duane retraction "syndrome" (DURS). Am. J. Med. Genet. A 131A: 216-218.
- 4. Borozdin, W., et al. 2004. SALL4 deletions are a common cause of Okihiro and acro-renal-ocular syndromes and confirm haploinsufficiency as the pathogenic mechanism. J. Med. Genet. 41: e113.
- 5. Kohlhase, J., et al. 2004. Mutations in SALL4 in malformed father and daughter postulated previously due to reflect mutagenesis by thalidomide. Birth Defects Res. Part A Clin. Mol. Teratol. 70: 550-551.
- 6. Borozdin, W., et al. 2004. Novel mutations in the gene SALL4 provide further evidence for acro-renal-ocular and Okihiro syndromes being allelic entities, and extend the phenotypic spectrum. J. Med. Genet. 41: e102.

#### CHROMOSOMAL LOCATION

Genetic locus: Sall3 (mouse) mapping to 18 E3.

#### PRODUCT

Sall3 shRNA (m) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 µl frozen stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see Sall3 siRNA (m): sc-45625 and Sall3 shRNA Plasmid (m): sc-45625-SH as alternate gene silencing products.

#### **STORAGE**

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

#### **APPLICATIONS**

Sall3 shRNA (m) Lentiviral Particles is recommended for the inhibition of Sall3 expression in mouse cells.

#### SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

#### GENE EXPRESSION MONITORING

Sall3 (N-15): sc-46042 is recommended as a control antibody for monitoring of Sall3 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor Sall3 gene expression knockdown using RT-PCR Primer: Sall3 (m)-PR: sc-45625-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

#### **RESEARCH USE**

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

#### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.